EVALUATION OF THE IMPLEMENTATION OF THE FLOOD DISASTER MANAGEMENT PROGRAM IN NORTH LUWU REGENCY FOR THE JANUARY-NOVEMBER 2022 PERIOD

Irmalasari Mustafa[1], Syamsuar Manyullei[1]*, Agus Bintara Brawija[1], Hasnawati Amqam[1], Balqis1, Irwandy[1], Awaluddin[2]

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Abstract

Floods are a regular disaster every year in North Luwu Regency when the rainy season arrives. A total of 46 areas in North Luwu Regency are prone to flooding. This study aims to dig up in-depth information regarding the implementation of flood disaster management in North Luwu Regency from the aspects of input, process and output. Data collection techniques in this study were obtained by in-depth interviews by testing the validity of the data using source triangulation techniques. The informants in this study were determined using a purposive sampling technique. The results of this study are that during a disaster the program has carried out search, rescue, evacuation, and quick response to disasters if a disaster occurs and in the post-disaster program, namely the distribution of housing assistance or housing repairs after the flash flood disaster reached 77.02%. However, during the pre-disaster program, the achievement of installing disaster-prone signs was 25.37%, the provision of disaster protection and preparedness equipment reached 3.72%, the development of disaster TRC capacity reached 3.74%, and the formation of village villages has not yet been implemented. This was not in accordance with what had been planned, due to insufficient input in the form of human resources, budget, and facilities and infrastructure, and in the process, namely the implementation of activities did not go according to plan. The conclusion in this study is that the high incidence of floods in North Luwu Regency is caused by planned activities that are not optimal in their implementation, lack of human resources, budget, facilities and infrastructure so that the resulting output cannot be achieved optimally. The need for government attention in fulfilling resources in supporting the implementation of flood disaster management programs in North Luwu Regency.

***Keywords**: Evaluation, Program, Flood, North Luwu*

[1]Faculty of Public Health, Hasanuddin University

[2]Sailus Health Center, Pangkajene Regency and Islands

Corresponding Email: syamsuar.mks@gmail.com

1. Introduction

North Luwu Regency is one of the districts that is subscribed to floods every year. Data-driven Field of Data Management and Information Systems of the Disaster Information and Communication Data Center of the National Disaster Management Agency (2022), In the last 10 years, North Luwu Regency has experienced floods, where in the last two years North Luwu has been the second largest contributor to flood events in South Sulawesi Province. One of the worst flood events experienced by North Luwu Regency was in 2020, where the flood that occurred was a flash flood accompanied by a landslide that caused 264 people to die and be declared missing, 282 people injured, and around 5.1 million people affected and displaced (PDSI BNPB, 2022).

Floods can cause inconvenience to the community in their activities, damage road bodies and other infrastructure due to frequent waterlogging, and can cause material losses and even casualties if a major flood disaster occurs (Prameisa, 2018). Not only during floods, but the impact of floods also occurs after floods. People living in flood-prone areas are at risk for suffering from Leptospirosis

(Manyullei, 2022). Research by Manyullei et al. (2021) in flood-prone areas in Makassar City found that 37% of 31 Leptopira positive blood serum samples in Manggala District and in Paccerakkang Village amounted to 28.6% of sewer water infected with Leptospira bacteria (Anwar &; Manyullei, 2020). Leptospira bacteria are bacteria that cause Leptospirosis (Manyullei, Natsir, et al., 2021).

Other health problems usually arise when exposed to inundation in various residential areas and in public places during floods and after floods (BNPB, 2017). Health problems that arise include acute respiratory infections (ARI) (Putra et al., 2018), diarrhea (Ishak et al., 2018), skin diseases (Amalia et al., 2020), gastritis, accidents (wounds, stung electricity, drowning, etc.), conjunctivitis, venomous animal bites, and abdominal typhus.

The flood that occurred in North Luwu Regency in 2020 was predicted by the Center for Disaster Studies of Hasanuddin University in 2017 published in the Journal of Physics by Maulana (2019), mentioned North Luwu as one of the areas with a high risk of flooding, where the upstream area of the river in Masamba was degraded due to many areas being repurposed, so that flash floods were prone to occur because extreme rain intensity related to global warming (BBC News Indonesia, 2020). North Luwu Regency is included in the High Risk category district experiencing flooding with a score of 185.2 (BNPB, 2020), where out of 173 Villages/Villages, there are 27.75% of these Villages/Kelurahan prone to flooding (BPBD North Luwu Regency, 2021).

Various disaster management efforts carried out in North Luwu Regency included the establishment of village villages, disaster management according to SOP, namely not more than one day, and rehabilitation and reconstruction activities in the form of infrastructure development. However, floods still occur every year in North Luwu Regency. Therefore, researchers conducted research on the evaluation of flood disaster management programs in North Luwu Regency for the period January-November 2022. This research was considered necessary because it was to find out the extent to which the implementation of flood disaster management programs had been carried out in North Luwu Regency from the aspect of input, process , and output in tackling flood disasters in North Luwu Regency.

2. Methods

This study uses a descriptive research method with a qualitative approach. This research was carried out at the Regional Disaster Management Agency (BPBD) office of North Luwu Regency and in several flood-prone areas, namely Radda Village, Baebunta sub-district and Beringin Jaya Village, South Baebunta District, which took place from November to December 2022. The informants in this study used a purposive technique. sampling, namely the informant who is considered the most knowledgeable about the problem of not optimal implementation of the flood disaster management program. The informants in this study were the Head of BPBD North Luwu Regency, Head of Section I for Disaster Prevention and Preparedness, Head of Section II for Emergency Handling and Logistics, and Head of Section III for Rehabilitation and Reconstruction.

The research instrument used in this study was the researcher himself besides that there were also supporting instruments including interview guides, observation sheets, tape recorders, stationery, notebooks, and cameras/documentation. Data collection techniques in this study were obtained by in-depth interviews. The validity of the data in this study was tested using the Informant technique of source triangulation, namely by checking the data that had been obtained through several sources (Chomaerah, 2020). The source triagulation informants in this study were one of the functional staff of BPBD disaster management in North Luwu Regency and village officials in flood-prone areas in North Luwu Regency, namely the Head of Beringin Jaya Village, South Baebunta District and the Secretary of Radda Village, Baebunta District.

3. Results and Discussion

Output of Implementation of Flood Disaster Management Program Activities

The results of pre-disaster activities by North Luwu Regency BPBD from 2022 to November 2022 are still below 50%. The achievement of installing disaster-prone signs was still 25.37%, because the budget was temporarily diverted to necessary post-disaster activities, due to the needs of the community after the flash flood disaster which must be fulfilled immediately to restore the social functioning of the disaster victims to normal conditions (Wahyudha, 2018).

The activity of providing disaster protection and preparedness equipment only reached 3.72%, capacity building for disaster TRC reached 3.74%, and the formation of village villages has not yet started due to the budget not being disbursed so that the activities have not been completed according to the planned target. The good knowledge of Destana members about disasters can make Destana members more alert and ready to face disasters. With the training activities, members can understand the meaning of evacuation and to help victims who experience cardiac and respiratory arrest (Husen et al., 2020). Destana can bring about a change in the paradigm of disaster management which was previously responsive to become integrated disaster management which is carried out in synergy involving multiple parties (UU No. 24 Tahun 2007).

BPBD North Luwu Regency also carries out a pre-disaster management program, by collaborating with radio in conveying disaster information and disaster information is also distributed through Facebook BPBD North Luwu Regency. One of the educational strategies undertaken by Saputri & Sudarmilah (2019) regarding flood disaster mitigation, through an Android-based flood disaster mitigation educational game for early childhood.

Research conducted by Suryana dan Sriyono (2021) it was found that the implementation of disaster management in the village of Kontakrejo was not maximized due to obstacles in the form of low community capacity, lack of dissemination of disaster risk reduction, lack of village government support and limited program budgets. In addition, research by Rehman et al. (2019), In order to mitigate the impact of floods, DRR policies need to be revised and implemented appropriately. In addition, community participation in decision-making systems, risk socialization and implementation of flood disaster intervention strategies will be a solution to achieve disaster resilience and be sustainable.

Activities during a disaster by the BPBD of North Luwu Regency are incidental. In 2022, no search, rescue, evacuation and rapid response activities have been carried out due to floods. Even though floods occurred more frequently this year, the floods that occurred were still categorized as small-scale floods and did not require evacuation assistance from the District BPBD.

In contrast to post-disaster activities, which since the aftermath of the flash floods that occurred in 2020, have a large workload in disaster rehabilitation and reconstruction. This year Sector III focuses on field verification and distribution of aid to victims of banjir bandang. In addition, infrastructure development such as embankment and bridge repairs is coordinated with the Office of Public Works. The construction of embankments, reservoirs, etc. is one method of controlling floods with the aim of preventing flood waters from reaching potential locations (Prakash et al., 2020).

The achievement of post-disaster activities was 77.02%. As of November 2022, the number of permanent housing that has been built is 1,005 houses, 241 houses are still not built, 452 houses are moderately damaged and 1,942 houses are slightly damaged, 40 houses are moderately damaged and around 500 houses have not been given assistance. In addition, river dredging activities have been running until now. However, it has not been able to prevent flooding, because the capacity of the river cannot accommodate high amounts of rainwater. Reconstruction of the embankment has been underway, but is carried out if there is a report from the public and is carried out partially or only in a threatening manner, due to budget constraints, so that it is easily damaged due to the condition of the embankments and bridges which already need permanent repairs. BPBD North Luwu Regency has coordinated with related parties in handling this problem.

This research is in line with research Basri & Alhadi (2021), Flood mitigation activities in Nagari Taram were carried out by normalizing rivers, building gabions and conducting outreach, socialization, and training on flood mitigation to the Taram community, but the mitigation efforts that have been carried out so far have not shown maximum results. Same with research Awusi et al. (2018), the performance achievement of BPBD in Manado City in Flood Disaster Management was 70% due to the problem of inadequate availability of tools/facilities and also limited professional human resources in the field of disaster, especially in flood disaster management in Manado City.

Flood Disaster Management Program Input

Human Resources

The data collection carried out at BPBD North Luwu Regency resulted in a total of 20 civil servants and 54 volunteers. However, those carrying out the flood disaster management program at BPBD North Luwu Regency were as many as 8 ASNs divided into Field I as many as 2 people, Field II as many as 3 people, Field III as many as 1 person, and functional disaster management administrators as many as 2 people, and the rest were assigned to administration. In addition, there are 54 volunteers who are the Rapid Reaction Team (TRC BPBD) in Field II. If in a situation where a disaster is not occurring, this Volunteer will assist in administrative activities at the secretariat and in each Sector. Based on this, the human resources for the flood disaster management program at the BPBD of North Luwu Regency based on the number and regional risks, namely the high risk of flooding, are actually insufficient in implementing the disaster management program.

HR BPBD North Luwu Regency has a fairly heavy workload considering the flash floods that have occurred in 2020, especially in the distribution of victim assistance, physical development, development of community preparedness for disasters, disaster mitigation, and construction of a flood early warning system, where reports Flood incidents can be detected remotely automatically (Puttinaovarat & Horkaew, 2020) and monitoring water levels and turning on sirens for warning signs of flooding (Danang et al., 2019).

The Head of Division I has never attended disaster prevention and preparedness training, only participated in socialization. Likewise, staff who have just joined Field I, have also never attended disaster prevention and preparedness training. One of the functions of HR Field I, namely carrying out guidance on disaster prevention and preparedness measures (BPBD Kabupaten Luwu Utara, 2021). Of course, human resource skills are needed in conveying information related to early warning, knowledge and disaster management efforts to the community, especially people living in flood-prone areas (Zahara, 2021).

Budget

The flood disaster management program at BPBD North Luwu Regency uses funds originating from the APBD and APBN. Funds for Sector I come from the APBD only, Sector II from the APBD and the Province are for the basic needs of the community during a disaster, and Sector III comes from the APBD, BPKAD through BTT, and the APBN which are incidental in nature, for example when there is a massive disaster where the funds are used for post-disaster recovery , so that the allocation of BPBD funds prioritizes Field I activities.

The APBD budget for the BPBD is insufficient in implementing disaster management programs because the APBD has not been able to fulfill all the budgeting proposed by the BPBD. In addition, the process of disbursing the APBD budget is experiencing problems because there are several activities in Field I which until November 2022 have not been implemented and there are several implementation activities whose achievements have not reached 50%. The available budget is also inadequate in procuring EWS for flood early warning, so that flood early warning activities by North Luwu Regency BPBD are only via Radio and Facebook.

Not only that, due to budget constraints, physical development, such as embankment management, is carried out partially (which is threatening). This is the same as the research conducted by Sari (2017) which states that there is a minimum available budget, so that

there are several programs and activities carried out in certain locations or only priority ones and operational costs to assist tasks in the field.

Facility and Infrastructure

The facilities and infrastructure available at BPBD North Luwu Regency are not sufficient in implementing the flood disaster management program. Lack of facilities and infrastructure such as rubber boats, lack of Pusdalops (Disaster Management Operations Control Center), such as flood EWS (Early Warning System). However, the BPBD can anticipate this by collaborating with the BMKG regarding weather and climate conditions, concurrently functioning existing vehicles, for example vehicles for public kitchens, also functioning to transport aid logistics. In addition, coordinating with cross-sectors in terms of using cross-sectoral equipment to be used together in handling emergencies. Disaster management is the joint responsibility of all parties, including the government, private sector and other layers and groups of society to contribute to the disaster management process (Wahyudha, 2018).

Policy

Public policy evaluation according to Widodo (2008) is a form of process that is used to assess how far a public policy can have use value, namely by comparing the results realized with the goals and targets of public policies that have been planned or determined. The North Luwu Regency Government and the Head of the North Luwu BPBD will not issue a policy related to flood disaster management in 2022 because the existing policies are still considered relevant to the current response needs. Disaster regulations covering pre-disaster activities, during disasters, and after disasters have been issued. In addition, there are also SOPs, disaster management guidelines, and contingency plans that have been made. The existence of disaster management procedures/guidelines is related to the preparedness of health workers in flood disaster management (Bakri et al., 2020).

Flood Disaster Management Program Process

Planning

The preparation of program and activity planning aims to realize the vision and mission of disaster management (Ahdi, 2015). The characteristics of a development plan are efforts to achieve development objectives related to the government's role as an agent of development (Tjokroamidjojo, 1996 dalam Ahdi, 2015).

Planning for the flood disaster management program at the beginning of the year was carried out by the head of the BPBD together with each Head of the BPBD of North Luwu Regency. The planning of activities that have been prepared at the beginning of the year is sufficient in realizing the objectives of the disaster management program, especially floods in North Luwu Regency. The planning carried out prioritizes activities in the field of flood prevention and preparedness.

This is in accordance with PP RI No. 21 of 2008, that disaster management activities in areas with the potential for disasters include preparedness, early warning, and disaster mitigation. Preparedness is a series of activities carried out to anticipate disasters through organizing and through appropriate and efficient steps. Early warning is a series of activities to give warnings as soon as possible to the public about the possibility of a disaster occurring in a place by an authorized institution. Mitigation is a series of efforts to reduce disaster risk, both through physical development and awareness and capacity building in dealing with disaster threats.

Mitigation planning for non-structural river overflow floods in the downstream Comal watershed, consisting of regional spatial planning that is aligned with land use management in the Comal watershed, detection and prediction of the condition of the Comal River discharge through recording and observing hydrometeorological data, planning for the management of the riparian area, disaster literacy in schools and communities, improving communication systems and local wisdom in the community, making evacuation routes, early warning systems and disaster simulations as well as reforestation and reforestation (Wibowo et al., 2019).

Organizing

Organizing is an effort to allocate the duties and authorities of each HR according to their duties and functions by utilizing existing resources and involving relevant stakeholders (Ahdi, 2015). The organization has been carried out at the BPBD of North Luwu Regency, as evidenced by the organizational structure of the North Luwu Regency BPBD in 2022. If a disaster occurs, the BPBD conducts an assessment in the field, after obtaining the truth of the disaster, the BPBD provides information to the SKPD group of North Luwu Regency, then contacts the related SKPD to carry out disaster management. Disasters are the responsibility of all agencies in North Luwu Regency, so if a disaster occurs, the North Luwu Regency BPBD coordinates to carry out disaster management (Wahyudha, 2018).

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4. Conclusion

Evaluation of the flood disaster management program at BPBD North Luwu Regency from the input aspect, namely human resources, budget, and facilities and infrastructure is not sufficient. Aspects of the process, namely planning and organizing is quite well done. However, the implementation of the activities has not been maximized, resulting in sub-optimal activity outcomes. Thus, the need for government attention in fulfilling resources in the form of adequate human resources in quantity and quality can work optimally by providing knowledge development through training, adequate facilities and infrastructure such as the procurement of EWS floods, an adequate budget which is not only sufficient but the disbursement process is not difficult in order to facilitate the implementation of the flood disaster management program by North Luwu Regency BPBD, especially in increasing community preparedness for flood disasters.

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